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Titusville Amateur Radio Club

TARC NEWSLETTER

April 1989

Officers

President: Bud Hughes K4CWG 269-0779
Vice Pres: Bob Nedimeyer W4VQB 269-1878
Secretary: Dennis Wren N4SDI 269-1762
Treasurer: Clyde Lee K4EOS 267-9375

President's Corner

I want to extend my sincere thanks to the TARC for the kindness shown in the loss of my mother. Now I know the sadness experienced when one loses his or her mother.

It was good to see those of you who attended the Orlando hamfest earlier this month. The hamfest provided a means for liquidating most of the equipment left by silent keys Earl, WD4CTD and Hal, N4EZD.

We are looking forward to the Indian River Raft Race and the Club's participation. Be sure to touch base with Pike, W4EPU, for details and to volunteer your services.

Don't forget the club meeting on the 25th -- bring a friend.

73, Bud / K4CWG

Classifieds

Everex 1200 baud internal IBM compatible modem w/terminal software - $85, PC mouse w/support software and pad - $25, complete B&W darkroom outfit - $125, Rossi 5 shot .38 special 3 inch barrel - $140, Cosina 100-500MM Zoom lens, Canon mount - $245, contact Rusty @ 268-4562.

The Editor's Desk

This is certainly a packed issue for the **TARC Newsletter**, and it doesn't even contain an article from Ozzie or Wynn. By the way, I owe an apology to Oz for not printing the title of his article which appeared in last months newsletter on the subject of fractions. I would print the name of the article now, but I can't find it in any of my directories. Sorry again, Oz.

We have several new contributors this month, one who isn't even a club member. **Steve Schindler, WD4MJJ**, has written an article on Project Dove, an educational endeavor utilizing one of the new

See **Desk** page 2.

Upcoming Events

> **April 25**, May 23 - next TARC meetings, 7 p.m., JayCees Building on Singleton Ave.
> **April 29** - Indian River Raft Race (Comm Support), contact Pike - W4EPU @ 269-4208.
> Every Thursday night - TARC Friendship Net, 7 p.m., 146.91 MHz
> 3rd Saturday of each month - SBARC / ARRL exams, 9:30 a.m. registration, FIT room Q20 under ham radio mast
> March 23-25, 1990 (tentative) - Orlando Hamcation, Orange County Civic Center (I-4, Exit 29)

Minutes of the March 28 meeting

The March meeting was called to order at 7:07 by Bob (W4VQB) as Bud was absent.

The minutes for the February meeting were read and accepted. Pike (W4EPU) said he will need about 10 people to help for the Indian River Raft Race. For more information Pike should be contacted.

Ron (KB4DCZ) got a call from the telephone company that stated that for the TARC repeater phone patch to be eligible for the lower phone rate the phone line would need to be at a house. He asked for it to be sent to him in a letter. Les (K4SJC) got a call from them that he said was confusing.

Clyde (K4EOS) gave a treasury report of a balance of $426.70 and petty cash of $20.49. This was accepted. Clyde said he had the hamfest tickets for those that bought them. It was reported that Bud (K4CWG) will have two tables at the Orlando Hamfest for items of sale. You are responsible for delivery and bringing home all left overs.

Wayne (KB4YLY) said that he is going to talk to the cable TV company to see what can be done with TVI on channel 18. He also gave reports on fox hunt,

See **Minutes** on back.

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269-2327

How YOU Can Help
Project Dove
by Steve Schindler – WD4MJJ

In mid 1989, AMSAT will launch four MicroSat satellites. The MicroSat known as DOVE (for Digital Orbiting Voice Encoder) is designed with educational purposes in mind. As DOVE circles the world, it will transmit voice messages along with spacecraft information. DOVE's educational focus will allow it to be used in ways that cut across subject matter boundaries. Physics, astronomy, electronics, geography, and language arts are but a few ways classrooms can make use of the signals from DOVE. The satellite can be used at educational levels from early elementary school through high school.

DOVE's downlink signal will be easily picked up on the ground by simple scanner / receivers or amateur radio gear. DOVE's first project will be to transmit short messages submitted by students worldwide expressing their wishes for peace in the world. Schools will submit tapes of the students reading their own messages. These tapes will be digitized and uplinked to the satellite's computer memory. The student's own voice will then be transmitted by DOVE. Assistance will be needed from Spacecoast hams to make Project DOVE a success.

Currently, the need is to get information about Project DOVE to the schools. In the future, hams will be needed to assist with the mechanics of receiving DOVE's signals. For information on how you can help, contact Steve Schindler, WD4MJJ at 867–3521 (work) or 639–0425 (home).

"I Don't Believe This!"
by Clyde Lee – K4EOS

That's the feeling I had when I opened the current "Ma Bell" bill. This club has been paying excess charges for our repeater phone for many years.

Now, at last, we are getting the residential rate on the phone, which should never have been classed as a business number.

This will amount to around $240 per year savings to TARC. I hope it will stay this way as we certainly do not need the excess expense. Thanks to the members who pursued this matter.

From: TIM UCKOTTER To: ALL Subj: ARRL DX BULLETIN NR 15

ARRL DX NR 15 (ARLD015) 4/14/89

Thanks to WB2CJL and the Western New York DX Association for the following DX information.

Rotuma/Fiji. QSL cards may be submitted for Rotuma credit on or after June 1, 1989. Cards submitted before that date will be returned without credit. There are a few DXCC members who have been given Fiji credit based on a 3D2 or other Rotuma QSO. They may resubmit this QSL card for the proper Rotuma credit, along with a Fiji card for Fiji credit, on or after June 1, 1989.

Wallis Island. Ron, ZL1AMO, is now active as FW0BX and has been worked on CW, SSB and RTTY. The length of his stay is undetermined.

Conway Reef. A group of german operators are expected to activate this one around April 17 on all bands. The call sign will be

See **DX** next column.

Desk...

Microsats. See the May QST for more information on this new exciting series of OSCARs. **Theresa Valek, WB4ZUZ**, has included an article on the humorous (if not familiar) side of hamfesting. I get this feeling that one of these days Dave, WB4SIG, may write an article in order to redeem his character, or maybe for general payback principle. Last but not least, **Clyde, K4EOS** (aka designated hamfest driver), has even thrown together an article regarding the repeater phone patch billing status.

By the way, Rusty is selling some non–ham equipment for the purpose of purchasing some ham equipment. Although he is not yet a ham, he is actively studying the code and feels somewhat comfortable with the theory. If you have some ham equipment that you can part with at a reasonable price, give him a call and help him out.

I have included some excerpts from the report generated by the special ARRL committee recommending the generation of a no–code license. The full report can be read in the May QST or downloaded from Tech–Talk BBS. Whether you are pro or con on the issue, you will probably agree with me that alot of thought and foresight went into this report. I hate to say it, but I have trouble finding reasons to argue against the contents of the report. However, I will probably have some extra space left in next month's issue for *your* opinion.

Thanks again to all of our contributors and see you all Tuesday night.

Respectfully, Doug / N4QVY

DX...

3D2ZZ or 3D2YY. The European DX Foundation has applied to have Conway Reef added to the DXCC countries list.

Laccadives. The operation by VU7WAP and other operators should begin any time now.

South Shetlands. CE9AP has been active. Look for him around 14200 to 14250 khz. QSL to CE3ESS.

Mv Island. Mv Island, 4J1, will be active the weekend of the CW WP contest, May 27 and 28.

Marion Islands. ZS8MI is now on 14185, 21185 and 28400 KHz listening up and down. QSL via ZS6PT.

Tunisia. 3V8QAS as been worked on 40, 20 and 15 CW with QSL info via KB2BF. KB2BF states he is not the QSL manager.

Tonga. Look for A35AA starting April 18 for two weeks.

Svalbard. JW7FD will be active starting June 1 for five months.

Spratly. UL7FAE plans to return to Vietnam, 3W, in the fall. If he can get enough funding he will attempt to operate from Spratly.

UI8TP, Oblast 052. UI8IAY, UI8IAQ, UI8IF, UI8QZ and UI8QU are signing /UI8T now through April 17 on all bands, CW and SSB. QSL via UI8IAJ.

Sable Island. VE1CBK will return to Sable Island for six days beginning around April 27. The call will be CY0SAB.

US0SU. US0SU, with U.S. and Soviet operators, came on the air as expected and has been very active. US0SU is located on Ayon Island, US0SU/1 is on the mainland at Pevek. This is a joint venture with U.S. and Russian operators.

Rhodes. N2OO, with SV0AA, will be active as N2OO/SV5 through April 20. QSL via N2OO. AR

Excerpts from the ARRL Study Committee No-Code License Report

Conclusions

1. No licensee should lose any present privileges.

2. The present Technician (3A) pool is already being revised to correct shortcomings in its syllabus. The Committee feels this action is needed, and its completion is a foundation of our recommendations. The examination length for this element should be increased to 30 questions to accommodate the slightly expanded syllabus.

3. The present Technician class will be renamed "Technician Plus". Each holder of the present Technician class license on the date of implementation of this proposal by the FCC will become a "Technician Plus."

4. A new class of license, called the "Technician", will be created. To obtain this license, an applicant will be required to pass the present Novice (Element 2) and the revised Technician (Element 3A) written examinations. Both of these examinations must be administered through the Volunteer Examiner Program and credit will not be given for having passed Element 2 before Novice Examiners.

5. For a Technician to become a Technician plus, he or she need only pass the Novice Code (Element 1A) examination at five words per minute. This must also be done through the Volunteer Examiner Program.

6. The licensees of the new class should have distinctive callsigns. These would be 2$X3s beginning with NA#AAA. Upon obtaining a Technician Plus license, the first letter would change to "K" (or the appropriate 1$X3 if the licensee requests). In practice, these licenses would probably begin with NE#AAA to avoid duplications with suffixes already issued in the KA-KC series.

7. The new Technicians should have all privileges now allowed present Technicians above 30 MHz except in the two meter band. On two meters, the new Technicians should have only digital privileges from 144.9 to 145.1 MHz.

Summary

For several years, it has been the goal of the League to increase the number of hams. This position is well-advised. The Committee does not for one moment accept that the code is antiquated or obsolete. Neither does the Committee encourage the slightest easing of code requirements below 30 MHz. However, as a filter against undesirable operators, Morse Code has demonstrated its own lack of validity. Many undesirables have, at one time or another, demonstrated skill in the subject. On the other hand, there is much evidence that the code is filtering out far too many desirable and technically qualified operators. These individuals COULD learn the code, but they see no relevance in doing so and spurn participation in a hobby guarded by what they erroneously believe to be an antiquated requirement. No matter how hard we might try, we cannot demonstrate to them the folly of their thinking. They must learn this for themselves. Thus, to expose them to the benefits of Amateur Radio while at the same time exposing them to the opportunity to see the benefits of Morse Code, we permit them to enter and allow them to find the value of the Code as a means of practical communication. The proposed structure encourages them to fit into the mainstream of Amateur Radio. We can also take advantage of the skills and knowledge they will bring to the Service. We believe only a proper written examination will provide an appropriate filter. The privileges we suggest for the new Technicians both demonstrate a proper level of competence and expose them to more mature operators and their techniques while permitting these newcomers to join the mainstream with an appropriate level of effort. Likewise, we believe the privileges we recommend be reserved to traditional licensees present adequate incentive to the new Technicians to join the mainstream.

--- FD 2.00 * Origin: W8GRT, Conference Moderator (1:234/1)

From: BYRON BLAKE To: ALL
Subj: RESULTS OF STUDY ON GOVERNMENT PREDICTIONS OF SOLAR FLUX

For the past few years I have been conducting a study of government forecasts for Solar flux and other indices. The study to be published in QST later this year covers 1984-1988. Briefly, the findings indicate: forecasts when wrong, are in general UNDER PREDICTIONS. That is, their predicted numbers are lower than the actual numbers.

Studying the accuracy of these predictions, we looked at their one-week and four week forecasts. Of course, the four-weeks were less accurate than the one-week. But something surprising was found. Remember, our most recent solar minimum (i.e. low activity) was September of 1986. You would expect predictions close to the mark since little variation and low and steady flux numbers occurred - you would be wrong. The worst one-week predictions overall occurred during 1985, the year prior to the minimum. The worst four-week predictions occurred in 1986. During more active years 1988 and 1984 for example predictions were very good. 1984 had the best one-week predictions and 1988 had the best four week predictions.

I am hesitant to state so with the work unfinished however one MIGHT be able to infer: 1984 one-week 88.4 % accurate (.25% error corrected) 1985 one-week 61.8 % accurate 1986 one-week 76.7 % accurate 1987 one-week 81.7 % accurate 1988 one-week 84.9 % accurate (.25% error corrected) average one-week 78.82 % (+/- .25%)

Absolutely Wild Idea, no real basis for fact: Since they underpredict in general (yes they do overpredict), one might infer that if on average over YEARS they added 21% to the predicted value that they might achieve more accurate results - I wouldn't call this procedure wrong or correct, I wouldn't support it either, but for the past 5 years, on average you would have been more precise, perhaps, nearly 100% on the money.

Four week results to be published later this weekend. 1988 and 1984 data have been lowered by .25% percent, an error was incurred (and hopefully corrected) due to the fact that both years were leap years.

Note: I am soley responsible for the statistical results, computer programming, data collection and analysis regarding this study. Results are not official and not ready for publication. Prof. Emil Pocock (ARS W3EP/1) contributed the idea, and made specific recommendations on various mathematical methods to use and procedures to follow, he will be responsible for written text and explanation. His "plan" was slightly modified with permission and the results above and later ones I will post here are preliminary and a large part are based on a correlation coefficient and regression analysis, which, previously we had great difficulty with.

Ham Festival

By General Theresa "Val" Valek Copyright 1989

Many, many moons ago in a land far, far south of here a nice lady sitting in a nice booth said "Would you like to buy tickets to the Orlando Hamfest? Two dollars cheaper than at the door." Never able to pass up a bargain, I said "Sure! I'll take two." Little did I realize what I'd gotten myself into. In the first place, it obligates me to go, regardless of other events that may be the same day. (I don't think wild horses could have kept me away, now that I think about it.) In the second place, the tickets don't save you ANY money if you can't find them three months later when you need them. I spent about four hours looking for them, which comes out to about a dollar an hour for my time. According to people I work with, that's about right.

Daybreak came early that day. It was quiet and cool. I had slept well, having polished off a bottle of the finest wine that three dollars will buy. I had been celebrating the end of another perfect week in a job that offers challenge, excitement, and the comfort of knowing I am a valued part of a well oiled machine. The night before was not unusual: my job often drives me to celebrate.

I was awakened from my stupor...er, I mean SLUMBER, when suddenly there came a tapping, as of someone gently rapping, rapping at my chamber door. Was it Run DMC? No, it was Dave, WB4SIG. As I scrambled for clothes, I screamed through the still-locked door, "Where was my wake-up call you promised at 7:30". Seems he tried calling but got a wrong number. Apparently he felt that satisfied the obligation nonetheless. I thought it pointless to argue this with him, what with the cat loudly stomping around on the carpet. I scrambled for clean clothes and a toothbrush.

About two minutes later I was nearly ready to go. Wynn, WB4ZUY, emerged from the bedroom. He asked sleepily if Dave and I had schemed to leave without him, as Wynn and I had accidentally done to Dave the previous year. Dave is an honest, decent guy who would never do such a thing. Dave volunteered that he wished he'd have thought of it in time.

We finally hit the road about 8:20 after gassing up and buying "breakfast". Dave sprung for "breakfast", which consisted of cinnamon-frosted fiberglass from the Stop & Rob where we had bought gas. Wynn and I complained bitterly, but Dave pointed out that we each had two. The empty package, humorously labeled "cinnamon rolls", went on the floor under my feet. As the trip progressed I managed to repeatedly step on the package. I had the best smelling sneakers at the hamfest.

The rest of the trip was pretty routine: Wynn (driving) suggested a route. Dave told him there was a much more direct, quick path there. They argued for twenty minutes while I complained about the tolls on Beeline. Wynn sceptically called Bud, K4CWG, on 146.91 and asked Bud how he would be getting there. Bud confirmed Dave's suggestion. Wynn grumbled. I griped about the tolls. Dave told us about the most interesting accidents, fires, and traffic bottlenecks of the last week. I groused about the tolls. A typical, uneventful road trip. When we finally arrived, I whined about having to pay for parking.

We took the shuttle bus from our parking area, just a little east of Bithlo, to the hamfest. Inside the door at 9:20. They waved the starting flag and Dave was off in a puff of smoke. He went straight through the swap tables, eagerly looking for bargains. He was driven: he wanted more pieces for his 440 repeater that he impulsively bought at the Melbourne hamfest. His repeater doesn't get much use, so he wants to add features and improve it. Dave knew what he was looking for: inexpensive, antiquated, working equipment. He looked up and down the rows of swap tables, never stopping until he had seen all the prices on all the treasures. Dave may have had the speed, but he lacked the comprehension. Whenever Wynn or I said, "Gee, I thought the guy wanted too much for the oscilloscope / transistors / Kenwood / sunglasses / plastic dinosaurs", Dave would say, "Where was that? I never saw those."

Wynn and I looked a little more slowly. The swap tables were good. There was a lot of late-model, preowned gear. There weren't many people selling junk, but most of those who were were selling it cheap. There were a lot of club tables filled with equipment of various vintages and most of it was reasonably priced. The crowds usually surrounded club and individual tables. In front of the commercial tables there were fewer browsers. Thank heavens, because those were the only thoroughfares down the aisles. Of course, the usual vendors were there: guys selling hats, telephones, plastic dinosaurs and commercial handy talkies. Do people really buy that junk? (Wynn, that is a rhetorical question. No one would believe you anyway.)

Wynn wasn't shopping for anything in particular. I was looking for a 440 rig. I wanted to buy gear for 440 so I could use Dave's repeater on 444.15 . I don't really have much use for it. Wynn speculates I only wanted a 440 so Dave would have some activity on his repeater. That way Dave wouldn't feel like he put up that nice repeater for nothing. Wynn wondered if I were to take the money I was going to spend on a 440 transceiver and give it to Dave to recoup some of the money he had in the repeater, wouldn't we both be happy? Nahhhhh, what fun would ham radio be without the suffering and the expenditures of large sums of cash. I continued to shop....

I saw a nice Yaesu dual-band HT. You know, the twentieth-century kind of HT. One that scans. And has a clock. And cruise control. My moment of truth: here is a working, modern dual-band HT at a fair price. Would I part with the money? But do I really want a HT, or would I prefer something for the car? Do I need dual-band, since I have hand-held and mobile 2 meters already?

See **Hamfest** next page.

Ham Festival
(cont'd)

I was not ready to make a decision. After all, I was only two rows in. I had a long way to go. As I started to move away from the table, I heard a fellow say, "If she isn't buying it, I'll take it." No matter. I wasn't yet sure of what I wanted. I was waiting for a 440 transceiver to strike me.

And strike me it did. On the next row a guy had an ICOM 4AT for $160. I saw it and fell in love. Not lust, like the model with cruise control. This was warm, comfortable love. It would be a sister to my friendly, dependable, comfortable ICOM 2AT. It had the mystical allure of hundreds of dollars worth of interchangeable batteries already purchased for the 2AT. I asked the seller, "What is the absolute least you will take for this unit?" and he replied "$155".

What happened in the next ten seconds is difficult to explain, so for now I will attribute it to temporary insanity. I said, "Mmmmm, I guess not". The split second I turned to walk away I knew I made a mistake. And at that very instant I heard another gentleman say, "Since she's not buying it, I'll take it."

I was suicidal. I wanted a gun. Silly me, the gun show was LAST weekend. I did the next best thing. I went to the front of the building to suck up diesel fumes from the shuttle buses. Lucky coincidence, it was time to meet a friend who said he would meet us at the front of the hamfest.

I waited, and waited, and waited. I was in constant radio contact with Wynn. I heard Wynn telling Dave I had just passed up a great deal on a 4AT. Asphyxiation is a slow death: I wondered if I could drown myself in the fountain. I was tired of waiting for Bill. I asked Wynn if he told Bill to meet us at the Convention Center? Or had he said Civic Center? Was it the Community Center or was it the Arena? I had visions of Bill standing in front of the Auditorium. I was about to lose hope.

Dr. Bill finally arrived, apologizing for being late. Then he turned into Mr. Hyde when he found out what admission and parking cost. I told him it could have been worse: he could have had to pay the tolls on Beeline. Then Wynn told him, "If you'd told them you were coming to the hamfest you wouldn't have had to pay for the parking." This did not help matters.

We were all finally together: Dave, Wynn, Bill and I. I forked over $125 for Cokes for the four of us. We wandered aimlessly through the swap area. And it caught my eye. Someone else had an ICOM 4AT 440 HT for sale. Just like the first one, only in a little better condition and a little cheaper. I asked the seller, "Does it work?" Dave jumped in, offering a repeater frequency at Sea World the 4AT should be able to raise. There was much confusion in the following 90 seconds, with Dave finally concluding, for all to hear, "IT DOESN'T WORK." About this time, someone requesting that whoever was kerchunking the repeater please stop. Oops. Dave apologized. The seller took it pretty good-naturedly, saying Dave about had HIM convinced it wasn't working. I dug through my wallet for the $140 and found myself $7 short. The guy said, "Take it for $130. That's what I would have taken for it anyway." I think he just wanted to get rid of me and Dave.

I was thrilled with my purchase. I ran to a nearby swap table where a vendor was selling magmount antennas. 440 magmounts are amusing little antennas: they are about five inches tall with a heavy magnet base. Wynn said it could be used as a spindle for skewering messages at my desk.

We finally made it to the new merchandise area of the hamfest. There were a lot of vendors we did business with in past years. Of course there was some very nice computer gear. That caught Bill's attention. He isn't a Ham and really just came to look at computer equipment anyway. Bill saw a very respectable VGA setup (computer video board and a color monitor) for about $550. Then Dave told him he could buy a top-of-the-line monitor for $550 on the next table. Of course, Bill would still need the $200 video board. Now you are talking about $750. That's more than Bill really wanted to spend. But look at the higher quality for only $200 more! Dave knows a guy who knows a guy who knows a guy that will sell him a top-of-the-line monitor for $500. The best money can buy. Of course, it is used equipment so Bill would have no warranty on it.

Bill went back and forth between the low-end and high-end units at the hamfest, still considering the secondhand unit from Dave's friend. Then he made a decision: he decided he really didn't new a new video system.

We all wandered around a while longer. Wynn drooled over some very nice packet radio equipment, but didn't buy anything. I went crazy over computer cable gender-benders and A/B switch boxes. I couldn't believe it. They were half what they cost in stores. Even though I didn't need any of these items, I just couldn't pass up such bargains.

About 3:30 we knew it was time to leave: we had all run out of money. We piled in to shuttle buses for the trip back to the car. We located the sunbaked car in Goofy 4. How appropriate. We stopped on the way home at Chili's for a greaseburger and some burnt garlic fries that would have been cheaper at the hamfest. We got back to Titusville and got a forklift to unload Dave's purchases. Wynn and I came home to look over our purchases and rub our feet. As I collapsed in my Lazyboy I picked up the "Welcome To The 1989 Orlando Hamcation" brochure. I lazily flipped through it and found out I had been in the wrong place all along. The "Ladies Program" had been going on in room 12A. Crafts, fashions, and fingernail care.

Looks like I missed the good stuff.

The **TARC Newsletter** is (usually) published on a monthly basis. Articles are published based on their newsworthiness to TARC membership, space available, and ease of entry to the publishing medium.

Preferred transfer methods are EMail to *Doug Reed* at Tech-Talk BBS, EMail on 2 meter packet to N4QVY@KB4LB or N4QVY@WD4HIM, direct packet, 3.5" AmigaDOS 880K disk, 3.5" MS-DOS disk, 5.25" MS-DOS 360K disk, direct landline modem, and print / hand-written / hardcopy formats, in that order. Separate each paragraph with a blank line for ease of re-formatting a publishing format.

Article / classified deadline is two Fridays prior to the date of the monthly meeting. The next deadline is **May 12** (two Fridays before the next meeting).

Articles may be given to the editor, Doug – N4QVY, at the IHOP on net nights, or left with Bud – K4CWG, where it will hopefully make its way to the aforementioned editor.

Minutes...

field day, and the special event station. If anyone needs information on these, contact Wayne. It was stated that for field day the club will use Fred'ss call (K4ZS) again this year.

Les (K4SJC) has a list of gear from silent key. If interested in any give him a call. In a report on the repeater Les (K4SJC) said he improved the sensitivity some. With a amplifier borrowed from Jim (W8DGD), the repeater is now running about 42 watts. As the current repeater battery charger does not have the necessary current capability, Les is looking for a 20 amp power supply. A motion was made to buy one not to exceed $100.

Bob (W4VQB) brought up the code/no code debate that is going on now. In a show of hands it seems that only a few use code in a major way.

After a short break Wynn (WB4ZUY) gave a short talk on the repeater control package.

– Dennis Wren, Secy.

W4 VQB
Bob Nedimyer
868 Hunter Park
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YOUR CLUB DUES EXPIRE: JAN 90

73 GL ES GUD DX de TARC !